

# **PROGRAM-RELATED FATALITIES**

## **MICHIGAN 2005**



Management Information Systems Section  
Management and Technical Services Division  
Michigan Department of Labor  
& Economic Growth  
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## **INTRODUCTION**

In 2005, Michigan reported 36 Program-Related fatalities. Program-Related fatalities in Michigan are recorded and tabulated by the Management Information Systems Section, Michigan Occupational Safety and Health Administration (MIOSHA), Michigan Department of Labor and Economic Growth. The sources of data include the Basic Report of Injury - Form 100 and telephone reports of fatalities to MIOSHA. The conditions necessary for a fatal case to be Program-Related are given in the NOTE ON PROGRAM RELATED CASES (see Page 8).

The intention of this report is to promote an understanding of what constitutes a Program-Related fatality and to assist in the continued effort of preventing and reducing fatal cases. Information presented in this report may be of special interest to employers, employees, safety professionals and consultants. Any inquiries regarding this report may be addressed to:

Management Information Systems Section  
Management and Technical Services Division  
Michigan Occupational Safety and Health Administration (MIOSHA)  
Michigan Department of Labor & Economic Growth  
7150 Harris Drive, Box 30643  
Lansing, Michigan 48909-8143  
Telephone (517) 322-1851

## **HIGHLIGHTS OF PROGRAM-RELATED FATALITIES, MICHIGAN 2005**

This Program-Related fatality information for Michigan was compiled from the "Employers Basic Report of Injury," Workers Disability Form 100s, and from direct telephone reports of fatalities to MIOSHA. Only fatal cases that are Program-Related, as defined by MIOSHA, are compiled. Therefore, the data does not include fatalities resulting from heart attacks, homicides, suicides, personal motor vehicle accidents, and aircraft accidents. The figures are shown in **Tables 1 through 12**.

### **PROGRAM-RELATED FATALITY TRENDS**

A definition of Program-Related cases can be found on Page 8 of this report. Program-Related fatality trends for 1977 through 2005 are shown in **Table 1**, as well as **Figure 1**.

This report is an overview of how the fatalities were distributed across industry groups, occupations, sources of injury or illness, events or exposures, parts of body affected, and nature of injury or illness. Frequencies of fatalities by age group, gender, month of occurrence, and counties of occurrence are also provided.

### **PROGRAM-RELATED FATALITIES BY INDUSTRY**

**Table 2** shows the distribution of Program-Related fatalities by industry groups in 2005. This was determined by the job being performed by the employee at the time of the accident. Beginning in 2003, the industry group category is based on the Northern American Industry Classification System (NAICS), which groups establishments into industries based on the activities in which they are primarily engaged. Prior to 2003, the industry group category was based on the Standard Industrial Classification (SIC) of the employer. Due to the substantial differences between the current and previous classification system, the results by industry in 2003 and thereafter constitute a break in series and users are advised against making comparisons between the 2003 industry categories and the results for previous years.

During 2005, the largest number of Program-Related fatalities was reported in the Construction industry (NAICS 23) with 17 fatalities.

### **PROGRAM-RELATED FATALITIES BY OCCUPATION**

Program-Related fatalities by occupation are shown in **Table 3**. The most affected occupation group with 16 Program-Related fatalities was Construction and Extraction followed by Transportation and Material Moving with six fatalities. These were followed by Production, which reported four fatalities. Installation, Maintenance and Repair and Building and Grounds Cleaning and Maintenance each reporting three.

### **PROGRAM-RELATED FATALITIES BY SOURCE OF INJURY OR ILLNESS**

The sources of injury or illness leading to Program-Related fatalities during 2005 are listed in **Table 4**. Ten fatalities were reported for the category of Floors, Walkways, Ground Surfaces; five were reported for Parts and Materials; and four fatalities were reported for the categories of Persons, Plants, Animals and Minerals, as well as Highway Vehicle, Motorized. All other sources contributed to two or less fatalities.

### **PROGRAM-RELATED FATALITIES BY EVENT OR EXPOSURE**

**Table 5** shows Program-Related fatalities by event or exposure. Of these, eight victims Fell to a Lower Level, six were Struck by an Object and four fatalities were the result of coming in Contact with Electric Current.

### **PROGRAM-RELATED FATALITIES BY PART OF BODY**

Parts of the body affected by fatal injury or illness are shown in **Table 6**. The data shows that Multiple Body Parts accounted for 11 fatalities. Ten fatal injuries or illnesses were specified for Body Systems, and seven cases were recorded for Cranial Region, including skull, as the part of body affected by fatal injuries and illnesses.

### **PROGRAM-RELATED FATALITIES BY NATURE OF INJURY OR ILLNESS**

Details of the nature of injuries and illnesses causing Program-Related fatalities are given in **Table 7**. The nature of the fatal injuries or illnesses reported Multiple Traumatic Injuries and Disorders and Multiple Intracranial Injuries reporting seven fatalities each, Internal Injuries to Organs and Blood Vessels of the Trunk reported five, and Electrocutions, Electric Shocks accounted for four fatalities. These categories accounted for approximately 64 percent of the total program-related fatalities that occurred in 2005.

### **PROGRAM-RELATED FATALITIES BY AGE AND GENDER**

The distribution of Program-Related fatalities by age and gender are shown in **Tables 8 and 9**. The age group of 36-40 suffered the largest amount of fatalities with six being reported. This was followed by the five-year age categories 21-25 and 31-35 each suffering five fatalities. The age groups 20 and under, 46-50 and 51-55 followed each reporting four fatalities. Of the 36 victims, 35 were male employees.

### **PROGRAM-RELATED FATALITIES BY MONTH OF OCCURRENCE**

Fatality data categorized by the month of occurrence is shown in **Table 10**. The months of May and July recorded the highest number of fatalities with five each. Four Program-Related fatalities were reported during the months of February, August, and September, while the months of January, June and December each recorded three fatalities. The months of March and November recorded two fatalities each. The month of April recorded only one fatality and the month of October reported no fatalities.

### **PROGRAM-RELATED FATALITIES BY INDUSTRY GROUP AND DAY OF THE WEEK**

Program-Related fatalities by industry group and day of the week are shown in **Table 11**. The highest number of fatalities by day of the week shows Friday with 13, followed by Tuesday with seven, both Wednesday and Thursday with five, Monday with four, and Saturday with two Program-Related fatalities.

#### **PROGRAM-RELATED FATALITIES BY COUNTY OF OCCURRENCE**

The distribution of fatality cases by counties shows that Program-Related fatalities were reported as occurring in 12 counties during 2005. Eight fatalities were reported in Wayne County (the largest amount for 2005), five fatalities in Kent County, and four fatalities in both Washtenaw and Oakland counties. A complete distribution of fatality cases by county of occurrence is shown in **Table 12**.

Even though Michigan's 2005 total Program-Related fatality cases are far less than the thousands of cases reported nationwide, the consequences of these on-the-job deaths in terms of human suffering, lost workdays, decreased production, and increased compensation rates are all too significant to be overlooked.

In order for Michigan to reduce the number of on-the-job fatality cases, it requires a conscious effort on the part of employers to recognize and comply with MIOSHA standards, develop and implement safe working procedures and assure that employees observe and practice these procedures. The MIOSHA program offers on-site consultation and consultation, education and training (CET) opportunities to employers and employees alike to help them achieve this goal.

The Program-Related fatality data for Michigan are presented in the following series of **Tables 1 through 12**. A brief description of how the Program-Related fatalities occurred is also provided following the series of tables. The descriptions are listed by industry groups based on the North American Industry Classification System (NAICS), which is based on the activity in which the establishment is primary engaged. Safety professionals may find this information useful for accident prevention.

#### **NOTE ON PROGRAM-RELATED CASES**

A fatality is recorded as "Program-Related" if the deceased party was employed in an occupation included in MIOSHA jurisdiction as defined in Public Act 154 of 1974, as amended, and the fatality appears to be related to one or more of the following conditions:

1. The incident was found to have resulted from violations of MIOSHA safety and health standards or the “general duty” clause.
2. The incident was considered to be the result of a failure to follow a good safety and health practice that would be the subject of a safety and health recommendation.
3. The information describing the incident is insufficient to make a clear distinction between a "Program-Related" and "non-Program-Related" incident, but the type and nature of the injury indicates that there is a high probability that the injury was the result of a failure to adhere to one or more MIOSHA standards, the “general duty” clause or good safety and health practice.

Any inquiries may be addressed to:

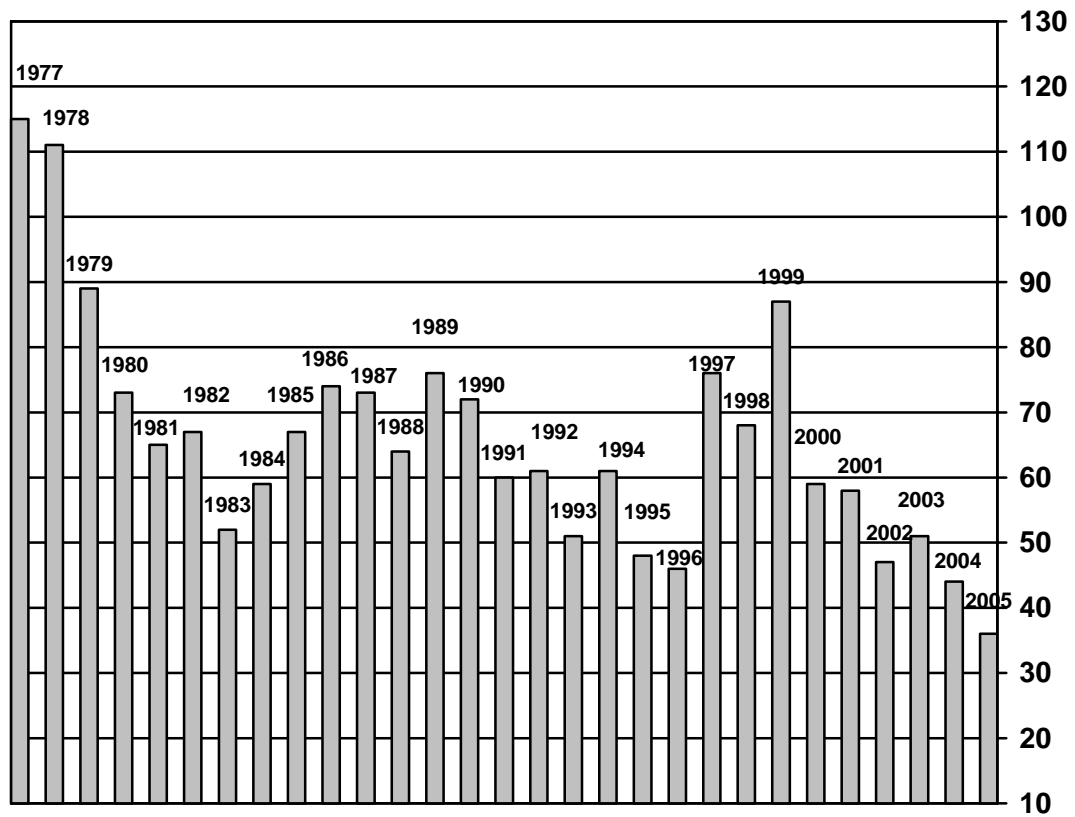
MANAGEMENT INFORMATION SYSTEMS SECTION  
MANAGEMENT AND TECHNICAL SERVICES DIVISION  
MICHIGAN OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (MIOSHA)  
MICHIGAN DEPARTMENT OF LABOR & ECONOMIC GROWTH  
7150 HARRIS DRIVE, BOX 30643  
LANSING, MICHIGAN 48909-8143  
(517) 322-1851

**TABLE 1**  
**PROGRAM-RELATED FATALITY TRENDS**  
**MICHIGAN 1977 – 2005**

<b>YEAR</b>	<b>NUMBER</b>	<b>PERCENT CHANGE FROM PREVIOUS YEAR</b>	<b>PERCENT DECREASE FROM 1977</b>
1977	115	----	----
1978	111	- 3.5	3.5
1979	89	-19.8	22.6
1980	73	-18.0	36.5
1981	65	-11.0	43.5
1982	67	+ 3.1	41.7
1983	52	-22.4	54.8
1984	59	+13.5	48.7
1985	67	+13.6	41.7
1986	74	+10.4	35.7
1987	73	- 1.4	36.5
1988	64	-12.3	44.3
1989	76	+18.8	33.9
1990	72	- 5.3	37.4
1991	60	- 16.7	47.8
1992	61	+ 1.7	47.0
1993	51	- 16.4	55.7
1994	61	+19.6	47.0
1995	48	- 21.3	58.3
1996	46	- 4.2	60.0
1997	76	+65.2	33.9
1998	68	- 10.5	40.9
1999	87	+27.9	24.3
2000	59	- 32.2	48.7
2001	58	- 1.7	49.6
2002	47	- 19.0	59.1
2003	51	+ 8.5	55.7
2004	44	- 13.8	61.8
2005	36	-18.2	68.7

Source: MISS/MTSD/ MIOSHA/Michigan Department of Labor & Economic Growth

**FIGURE 1  
PROGRAM-RELATED FATALITY TRENDS  
MICHIGAN 1977-2005**



Source: MISS/MTSD/ MIOSHA/Michigan Department of Labor & Economic Growth

**TABLE 2**  
**PROGRAM-RELATED FATALITIES**  
**BY INDUSTRY GROUPS**  
**MICHIGAN 2005**

<b>NAICS MAJOR SECTOR</b>	<b>INDUSTRY GROUP</b>	<b>TOTAL</b>
11	AGRICULTURE, FORESTRY, FISHING AND HUNTING	0
21	MINING	1
22	UTILITIES	0
23	CONSTRUCTION	17
31-33	MANUFACTURING	6
42	WHOLESALE TRADE	1
44-45	RETAIL TRADE	0
48-49	TRANSPORTATION AND WAREHOUSING	4
51	INFORMATION	0
52	FINANCE AND INSURANCE	0
53	REAL ESTATE AND RENTAL AND LEASING	0
54	PROFESSIONAL, SCIENTIFIC AND TECHNICAL SERVICES	0
55	MANAGEMENT OF COMPANIES AND ENTERPRISES	0
56	ADMINISTRATIVE AND SUPPORT AND WASTE MANAGEMENT AND REMEDIATION SERVICES	4
61	EDUCATIONAL SERVICES	0
62	HEALTH CARE AND SOCIAL ASSISTANCE	0
71	ARTS, ENTERTAINMENT AND RECREATION	2
72	ACCOMMODATION AND FOOD SERVICES	0
81	OTHER SERVICES (EXCEPT PUBLIC ADMINISTRATION)	0
92	PUBLIC ADMINISTRATION	1
<b>TOTAL</b>		<b>36</b>

Note: The industry group categories are based on the Northern American Industrial Classification System (NAICS), which is based on the activities in which the establishments are primarily engaged.

Source: MISS/MTSD/ MIOSHA/Michigan Department of Labor & Economic Growth

**TABLE 3**  
**PROGRAM-RELATED FATALITIES**  
**BY OCCUPATION**  
**MICHIGAN 2005**

<b>STANDARD OCCUPATION CODE</b>	<b>OCCUPATION</b>	<b>NUMBER OF CASES 2005</b>
11-0000	MANAGEMENT	1
17-0000	ARCHITECTURE AND ENGINEERING	1
33-0000	FIREFIGHTERS, SECURITY GUARDS	2
37-0000	BUILDING AND GROUNDS CLEANING AND MAINTENANCE	3
47-0000	CONSTRUCTION AND EXTRACTION	16
49-0000	INSTALLATION, MAINTENANCE AND REPAIR	3
51-0000	PRODUCTION	4
53-0000	TRANSPORTATION AND MATERIAL MOVING	6
<b>TOTAL</b>		<b>36</b>

Note: Occupations are based on the Standard Occupational Classification (SOC) coding manual.

Source: MISS/MTSD/MIOSHA/Michigan Department of Labor & Economic Growth

**TABLE 4**  
**PROGRAM-RELATED FATALITIES BY**  
**SOURCE OF INJURY OR ILLNESS MICHIGAN 2005**

<b>SOURCE OF INJURY OR ILLNESS</b>	<b>NUMBER OF CASES 2005</b>
CHEMICALS AND CHEMICAL PRODUCTS	1
AGRICULTURAL AND GARDEN MACHINERY	2
CONSTRUCTION, LOGGING, AND MINING MACHINERY	1
MATERIAL HANDLING MACHINERY	2
METAL, WOODWORKING AND SPECIAL MACHINERY	1
PARTS AND MATERIALS	5
PERSONS, PLANTS, ANIMALS AND MINERALS	4
FLOORS, WALKWAYS, GROUND SURFACES	10
OTHER STRUCTURAL ELEMENTS	1
HIGHWAY VEHICLE, MOTORIZED	4
PLANT AND INDUSTRIAL POWERED VEHICLES, TRACTORS	2
RAIL VEHICLE	1
FIRE, FLAME, SMOKE	2
<b>TOTAL</b>	<b>36</b>

Source: MISS/MTSD/MIOSHA/Michigan Department of Labor & Economic Growth

**TABLE 5**  
**PROGRAM-RELATED FATALITIES**  
**BY EVENT OR EXPOSURE**  
**MICHIGAN 2005**

<b>EVENT OR EXPOSURE</b>	<b>NUMBER OF CASES 2005</b>
STRUCK BY OBJECT	6
CAUGHT IN OR COMPRESSED BY EQUIPMENT OR OBJECTS	3
CAUGHT IN OR CRUSHED IN COLLAPSING MATERIALS	2
FALL TO LOWER LEVEL	8
FALL ON SAME LEVEL	1
BODILY CONDITIONS, NEC	1
CONTACT WITH ELECTRIC CURRENT	4
EXPOSURE TO CAUSTIC, NOXIOUS, OR ALLERGENIC SUBSTANCES, UNSPECIFIED	1
OXYGEN DEFICIENCY, NOT ELSEWHERE CLASSIFIED	2
NON-HIGHWAY ACCIDENT, EXCEPT RAIL, AIR, WATER	3
PEDESTRIAN, NONPASSENGER STRUCK BY VEHICLE, MOBILE EQUIPMENT	2
RAILWAY ACCIDENT	1
FIRE	1
EXPLOSION	1
<b>TOTAL</b>	<b>36</b>

Source: MISS/MTSD/MIOSHA/Michigan Department of Labor & Economic Growth

**TABLE 6**  
**PROGRAM-RELATED FATALITIES**  
**BY PARTS OF BODY AFFECTED**  
**MICHIGAN 2005**

<b>PARTS OF BODY AFFECTED</b>	<b>NUMBER OF CASES 2005</b>
CRANIAL REGION, INCLUDING SKULL	7
NECK	1
CHEST, INCLUDING RIBS, INTERNAL ORGANS	3
LUNGS	1
MULTIPLE TRUNK LOCATIONS	3
BODY SYSTEMS	10
MULTIPLE BODY PARTS	11
<b>TOTAL</b>	<b>36</b>

Source: MISS/MTSD/MIOSHA/ Michigan Department of Labor & Economic Growth

**TABLE 7**  
**PROGRAM-RELATED FATALITIES**  
**BY NATURE OF INJURY OR ILLNESS**  
**MICHIGAN 2005**

NATURE OF INJURY OR ILLNESS	NUMBER OF CASES 2005
MULTIPLE TRAUMATIC INJURIES TO BONES, NERVES, SPINAL CORD	1
HEAT BURNS, SCALDS	1
MULTIPLE INTRACRANIAL INJURIES	7
HYPOTHERMIA	1
MULTIPLE TRAUMATIC INJURIES AND DISORDERS	7
INTRACRANIAL INJURIES AND INJURIES TO INTERNAL ORGANS	2
ASPHYXIATIONS/STRANGULATIONS, SUFFOCATIONS	3
DROWNINGS	1
ELECTROCUTIONS, ELECTRIC SHOCKS	4
INTERNAL INJURIES TO ORGANS AND BLOOD VESSELS OF THE TRUNK	5
OTHER POISONINGS AND TOXIC EFFECTS, NEC	1
NON-SPECIFIC INJURIES AND DISORDERS	1
PNEUMONIA	1
CONVULSIONS, SEIZURES	1
<b>TOTAL</b>	<b>36</b>

Source: MISS/MTSD/ MIOSHA/Michigan Department of Labor & Economic Growth

**TABLE 8**  
**PROGRAM-RELATED FATALITIES BY AGE**  
**MICHIGAN 2005**

<b>AGE</b>	<b>NUMBER OF CASES 2005</b>	<b>PERCENT OF CASES</b>
20 and Under	4	11
21 - 25	5	14
26 - 30	3	8
31 - 35	5	14
36 - 40	6	17
41 - 45	2	5
46 - 50	4	11
51 - 55	4	11
56 - 60	1	3
61 and Over	2	5
<b>TOTAL</b>	<b>36</b>	<b>99</b>

Source: MISS/MTSD/MIOSHA/Michigan Department of Labor & Economic Growth

**TABLE 9**  
**PROGRAM-RELATED FATALITIES BY GENDER**  
**MICHIGAN 2005**

<b>GENDER</b>	<b>NUMBER OF CASES 2005</b>
MALE	35
FEMALE	1
<b>TOTAL</b>	<b>36</b>

Source: MISS/MTSD/MIOSHA/Michigan Department of Labor  
& Economic Growth

**TABLE 10**  
**PROGRAM-RELATED FATALITIES**  
**BY MONTH OF OCCURRENCE**  
**MICHIGAN 2005**

<b>MONTH OF OCCURRENCE</b>	<b>NUMBER OF CASES 2005</b>
JANUARY	3
FEBRUARY	4
MARCH	2
APRIL	1
MAY	5
JUNE	3
JULY	5
AUGUST	4
SEPTEMBER	4
OCTOBER	0
NOVEMBER	2
DECEMBER	3
<b>TOTAL</b>	<b>36</b>

Source: MISS/MTSD/MIOSHA/Michigan Department of Labor & Economic Growth

**TABLE 11**  
**PROGRAM-RELATED FATALITIES**  
**BY INDUSTRY GROUPS AND DAY OF THE WEEK**  
**MICHIGAN 2005**

<b>INDUSTRY GROUP</b>	<b><u>DAY OF THE WEEK</u></b>							<b>TOTAL</b>
	<b>SUN</b>	<b>MON</b>	<b>TUE</b>	<b>WED</b>	<b>THUR</b>	<b>FRI</b>	<b>SAT</b>	
CONSTRUCTION	0	3	5	3	0	6	0	<b>17</b>
MANUFACTURING	0	0	1	1	1	3	0	<b>6</b>
TRANSPORTATION & WAREHOUSING	0	0	0	1	1	2	0	<b>4</b>
ARTS, ENTERTAINMENT, & RECREATION	0	1	0	0	0	0	1	<b>2</b>
ADMIN. & SUPPORT & WASTE MGMT. & REMEDATION SERV.	0	0	1	0	1	1	0	<b>3</b>
WHOLESALE TRADE	0	0	0	0	1	0	0	<b>1</b>
MINING	0	0	0	0	0	1	0	<b>1</b>
MANAGEMENT OF COMPANIES & ENTERPRISES	0	0	0	0	0	0	1	<b>1</b>
PUBLIC ADMINISTRATION	0	0	0	0	1	0	0	<b>1</b>
<b>TOTAL</b>	<b>0</b>	<b>4</b>	<b>7</b>	<b>5</b>	<b>5</b>	<b>13</b>	<b>2</b>	<b>36</b>

Source: MISS/MTSD/MIOSHA/Michigan Department of Labor & Economic Growth

**TABLE 12**  
**PROGRAM-RELATED FATALITIES BY**  
**COUNTY OF OCCURRENCE, MICHIGAN 2005**

COUNTY	NUMBER OF CASES
ALPENA	0
ANTRIM	0
BAY	0
BERRIEN	2
CASS	0
CHEBOYGAN	0
EATON	0
EMMET	2
GENESEE	1
GLADWIN	0
GRAND TRAVERSE	3
HURON	0
INGHAM	0
IONIA	1
ISABELLA	0
JACKSON	1
KALAMAZOO	2
KENT	5
LENAWEE	0
LIVINGSTON	0
MACKINAC	0
MACOMB	1
MARQUETTE	0
OAKLAND	4
SAGINAW	0
ST. CLAIR	0
TUSCOLA	0
WASHTENAW	4
WAYNE	8
<b>TOTALS</b>	<b>36</b>

Source: MISS/MTSD/MIOSHA/Michigan Department of Labor & Economic Growth

**PROGRAM-RELATED FATALITY INCIDENTS  
BRIEF DESCRIPTIONS OF CASES BY INDUSTRY GROUPS**

**CONSTRUCTION:**

1. Employee was installing roofing material on an existing building when employee fell from roof to surface 20-feet below.

Violations noted:

- Scaffolds and Scaffold Platforms
- Fall Protection
- General Rules
- General Duty

2. Employee was walking on a purlin for a pre-engineered building when he lost his balance and fell approximately 22-feet to ground below.

Violations noted:

- Steel Erection

3. While working from ladder, employee fell approximately 20 feet to deck and another 10 feet to concrete floor.

Violations noted:

- General Rules
- Fixed and Portable Ladders
- Fall Protection
- Recording and Reporting of Occupational Injuries and Illnesses

4. Employee was cutting holes in roofing deck. He stepped on a partially cut hole and fell through. Fell approximately 65 feet.

Violations noted:

- Fall Protection

5. Employee was electrocuted while spraying water-based asbestos encapsulate. Water-based encapsulate came in contact with bare conductors on electrical cord supplying power to spray equipment. One employee received a fatal electric shock and another received a nonfatal shock.

Violations noted:

- General Rules
- Electrical Installations
- Asbestos

## **CONSTRUCTION (Continued):**

6. Victim was standing on chair installing a light when he fell from the chair.

Violations noted:

Recording and Reporting of Occupational Injuries and Illnesses

7. East side of excavation failed and collapsed on employee while installing an 8-inch duct pipe with co-worker.

Violations noted:

General Rules

Excavation, Trenching and Shoring

8. Victim made contact with phase conductor jumper energized with 40kv of induced energy while installing HVAC equipment.

Violations noted:

General Rules

Power Transmission and Distribution

9. Employee was doing concrete form work when he was found face down in a small amount of water in the open basement of a single family home. There was a defective electrical cord lying in the water in the basement.

Violations noted:

General Rules

Fixed and Portable Ladders

Electrical Installations

10. Worker fell approximately 40 feet from residential roof to ground below.

Violations noted:

Scaffolds and Scaffold Platforms

Fall Protection

11. Victim was struck by a frozen chunk of dirt that rolled into the excavation where the victim was standing.

Violations noted:

General Rules

General Duty

Excavation, Trenching and Shoring

## **CONSTRUCTION (Continued):**

12. Victim was installing rebar in masonry wall when rebar made contact with overhead power lines.

Violations noted:

- General Rules
- Masonry Wall Bracing
- Scaffolds and Scaffold Platforms

13. Employee was setting wood trusses on new commercial building construction site when the trusses collapsed causing the employee to fall and he was then struck by the wood trusses.

Violations noted:

- General Rules
- General Duty
- Personal Protective Equipment
- Scaffolds & Scaffold Platforms
- Guarding of Walking and Working Areas
- Aerial Work Platforms
- Fall Protection

14. Employee was engaged in traffic regulating work activities when he was struck and killed by a motorist.

Violations noted:

- Signals, Signs, Tags and Barricades

15. Employee fell from scaffold platform approximately 8 to 10 feet.

Violations noted:

- Scaffolds and Scaffold Platforms
- General Rules
- Guarding of Walking and Working Areas

16. Employees were working in excavation replacing a sewer line when the side of the excavation collapsed. One employee was fatally injured and the other was rescued with minor injuries.

Violations noted:

- General Rules
- Excavation, Trenching and Shoring
- Inspections and Investigations, Citations and Proposed Penalties

## **CONSTRUCTION (Continued):**

17. Employees were cleaning up and removing scrap from yard with boom crane when cable of boom crane touched energized power lines.

Violations noted:

Crawler, Locomotive and Truck Cranes  
Recording and Reporting of Occupational Injuries and Illnesses

## **PUBLIC ADMINISTRATION:**

18. The deceased ran out of oxygen while conducting fire fighting operations in the interior of a structure.

Violations noted:

Fire Fighting

## **TRANSPORTATION AND WAREHOUSING:**

19. The deceased employee positioned himself between the wheels of a trailer. The driver of the truck pulled the trailer ahead and ran over the employee causing his death.

Violations noted:

General Duty

20. Employee was underneath a vehicle disengaging the transfer case of vehicle that was to be towed, when the vehicle fell from the hoist of the tow truck, crushing the employee.

Violations noted:

General Provisions  
Slings  
Inspections and Investigations, Citations and Proposed Penalties

21. The employee was riding on the point railcar, when a derailment occurred crushing him between the railcar and a stationary steel beam.

Violations noted:

General Provisions

22. An employee was operating a forklift truck. As he went to pick up a skid of material, he reached through the mast and received a head injury. He was subsequently placed on life support. It was later removed and the employee died.

Violations noted:

Powered Industrial Trucks

## **MANUFACTURING:**

23. Employee entered into a working cell area, where production of parts was being manufactured, to check a problem with a machine alignment. The employee reconnected the interlock system for the machines once inside the cell and was crushed when the machine activated. The employee's body was between the moving and stationary portion of the equipment.

Violations noted:

Lockout/Tag out  
General Provisions  
Design Safety Standards for Electrical Systems

24. The deceased employee was attempting to empty a garbage hopper into the trash compacting dumpster. He was found pinned between the hopper and the mast of the powered industrial truck.

Violations noted:

Powered Industrial Trucks

25. Employee fell into brine tank at manufacturing facility and drowned.

Violations noted:

Common Violations  
Floor and Wall Openings, Stairways and Skylights  
Fall Protection  
Permit-Required Confined Spaces

26. The employee was operating a bladder type forming machine. Air is directed from the regulator through an air hose attached to the dome of the lid. As the pressure inside the lid increased, the lid blew off, with a piece striking the deceased in the neck.

Violations noted:

General Provisions

27. Employee was loading office furniture onto pallets. The removable standard barrier had not been replaced and the employee lost his footing and fell to the floor below.

Violations noted:

Common Violations  
Floor and Wall Openings, Stairways and Skylights

28. Employee was working third shift performing various tasks in the mixing room where various adhesives were being manufactured. He was later observed coming from the room with complaints of not being able to breathe. He collapsed and was then transported to a local hospital where he died.

Violations noted:

Medical Service and First Aid  
Recording and Reporting of Occupational Injuries and Illnesses

## **MINING:**

29. The deceased was to dig exploratory holes to test soil using an excavation machine. While driving the excavator along the edge of the pond, the ground broke causing the excavator to tip over into mud and water. As a result, he was trapped in cab in mud and water and drowned.

Violations noted:

Recording and Reporting of Occupational Injuries and Illnesses

## **ADMINISTRATIVE AND SUPPORT AND WASTE MANAGEMENT AND REMEDIAATION SERVICES:**

30. The employee was attempting to unload a gas powered granular fertilizer spreader from the back of a van when he became pinned between the roof of the van and the handle bars causing severe injuries and death.

Violations noted:

Recording and Reporting of Occupational Injuries and Illnesses

31. Employee was helping move a concrete slab using a gantry crane when the wire rope sling broke causing concrete slab to fall striking employee, knocking employee into another concrete slab and striking his head.

Violations noted:

Overhead and Gantry Cranes

Personal Protective Equipment

Slings

Recording and Reporting of Occupational Injuries and Illnesses

32. While working on the ground, the employee was struck by a limb that fell from the tree being cut down. He was struck in the head and shoulder.

Violations noted:

None

## **ARTS, ENTERTAINMENT AND RECREATION:**

33. Employee was operating a riding lawn mower and cutting the grass in the quarry area of a golf course. The mower went over the side and the employee was found at the bottom of the slope.

Violations noted:

Powered Groundskeeping Equipment

Personal Protective Equipment

## **ARTS, ENTERTAINMENT AND RECREATION (Continued):**

34. Employee was filling plastic fuel container for the racers at the race track when an explosion occurred. The employee received burns over 80 percent of his body. It was found that there was no ground straps being used and improperly rated wiring was being used for the area as well.

Violations noted

General Provisions

Design Safety Standards for Electrical Systems

Flammable and Combustible Liquids

Recording and Reporting of Occupational Injuries and Illnesses

Inspections and Investigations, Citations and Proposed Penalties

## **WHOLESALE TRADE:**

35. Employee was helping the owner of the firm remove the motor and transmission from a vehicle. The owner had lifted the front of the vehicle with a tractor equipped with forks and had placed two pipes under the front end of the vehicle to help support it. The vehicle started to roll backwards and it came off the pipes that were supporting it. It came down on employee pinning him underneath vehicle.

Violations noted:

General Provisions

Recording and Reporting of Occupational Injuries and Illnesses

## **MANAGEMENT OF COMPANIES AND ENTERPRISES:**

36. Employee was operating an electric overhead door when a section of the door fell on top of him.

Violations noted:

None